

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application ) **PATENT APPLICATION**  
 )  
 Inventor(s): HILL BRANSCOMB )  
 )  
 SC/Serial No.: 08/000927 )  
 )  
 Filed: January 6, 1993 )  
 )  
 Title: APPARATUS AND METHOD FOR ASSEMBLING )  
 CONTENT ADDRESSABLE VIDEO )  
 )

**DECLARATION FOR PATENT APPLICATION**  
(CONTINUATION-IN-PART)

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if one name is listed below), first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**APPARATUS AND METHOD FOR ASSEMBLING CONTENT ADDRESSABLE VIDEO**

the specification of which (check applicable ones):

is attached hereto;

was filed with the above-identified "Filed" date and "SC/Serial No."

was amended on (or amended through) January 6, 1993.

The present application is a continuation-in-part of Prior Application, Application No. 07/640,489, filed: January 11, 1991 and may be considered to disclose and claim subject matter in addition to that disclosed in the Prior Application, and I hereby claim the benefit of 35 U.S.C. Section 120.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose information which is material to the examination of the application in accordance with Title 37, Code of Federal Regulations, §1.56, including information which became available between the filing date of the Prior Application and the national or PCT international filing date of the present application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

(1) Full name of sole  
or first inventor: Hill Branscomb

(1) Residence: 1173 California St. # 1612  
SF Ca 94108

(1) Post Office Address: 220 montgomery St # 3341  
SF Ca 94104

(1) Citizenship: U.S.A.

(1) Inventor's signature: C. N

(1) Date: 1/11/53

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**Title 37, Code of Federal Regulations, §1.56**

**SECTION 1.56. DUTY TO DISCLOSE INFORMATION  
MATERIAL TO PATENTABILITY**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98.\* However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a *prima facie* case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

- (i) Opposing an argument of unpatentability relied on by the Office; or
- (ii) Asserting an argument of patentability.

A *prima facie* case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

\* §§1.97(b)-(d) and 1.98 relate to the timing and manner in which information is to be submitted to the Office.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application	)	<u>PATENT APPLICATION</u>
	)	
Inventor(s): Hill Branscomb	)	
	)	
Serial No.: 07/640,489	)	
	)	
Filed: 01/11/91	)	
	)	
Title: APPARATUS AND METHOD FOR	)	
ASSEMBLING CONTENT ADDRESSABLE VIDEO	)	
	)	

DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

APPARATUS AND METHOD FOR ASSEMBLING  
CONTENT ADDRESSABLE VIDEO

the specification of which (check applicable ones):

XX was filed with the above-identified "Filed" date and "SC/Serial No."

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose information which is material to the examination of the application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the

like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

(1) Full name of sole or first inventor: Hill Branscomb

(1) Residence: 2810 Fillmore Street  
San Francisco, CA 94123

(1) Post Office Address: same as above

(1) Citizenship: U.S.A.

(1) Inventor's signature: Hill Branscomb

(1) Date: 2/12/91

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Title 37, Code of Federal Regulations, §1.56(a)

SECTION 1.56. DUTY OF DISCLOSURE; FRAUD; STRIKING  
OR REJECTION OF APPLICATION.

(a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application. Such information is material when there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The duty is commensurate with the degree of involvement in the preparation or prosecution of the application.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of ) PATENT  
HILL BRANSCOMB )  
Application No.: 08/000,927 )  
Filed: January 6, 1993 ) Group Art Unit: 2609  
For: APPARATUS AND METHOD FOR ) Examiner: M. Luu  
ASSEMBLING CONTENT )  
ADDRESSABLE VIDEO )

DECLARATION OF MICHAEL T. MacKAY  
UNDER 37 C.F.R. § 1.132

I, Michael T. MacKay, hereby declare as follows:

1. An expert with over 15 years of experience in the design, implementation and operation of multi-media environments, including computer graphics and video. A copy of a recent resume for me is attached hereto as Exhibit 1.

2. Over the course of my career, I have been involved in the hiring and management of teams of engineers, and have developed a knowledge of the ordinary level of skill in the video and computer graphics arts. Although, the ordinary level of skill may be somewhat higher, the minimum skills required are a degree in electrical engineering or computer science with at least one year of experience in film, video, and graphics engineering.

3. In connection with the above-identified U.S. patent application, I have been informed that the Patent Examiner has rejected certain claims in the application, on the basis that the application fails to provide an adequate written description of the invention. I have reviewed the application and claims. It is my opinion that all elements of the claims as described in the application, and that the description is sufficient to enable a person of ordinary skill in the computer graphics art to practice the invention.

4. Particularly, the Examiner has stated:

The Applicant has failed to disclose the exact "means for associating tags with frames of video data..." as recited in claims 1 and 7. How is the "associating means" coupled to the storage means since the drawings do not show the "associating tag means" as specified in the claims. (Page 3 of the Official Action mailed April 30, 1993).

5. The elements in claims 1 and 7 to which this rejection is directed, read as follows:

In Claim 1:

"means, coupled with the storage means, for associating tags with frames of video data in the plurality, the tags indicating the contents of the video images defined by the associated frames;"

In Claim 7:

"associating tags with frames of video data in the plurality, the tags indicating the contents of the video images defined by the associated frames;"

6. In the specification, the "means for associating tags", and the step of associating tags with frames of video data is clearly described. In particular, in Fig. 4, step 401 reads "ASSIGN KEY TO EACH VIDEO FRAME". A person of ordinary skill in the art would readily understand that this results in association of a tag (key) with each video frame. Although the term "key" is used in the figure, those of skill in the art will understand that a key assigned with a frame would be considered a "tag".

7. The process for generating the keys is described on page 11, lines 9-15.

8. Further, on page 15, lines 13-15 of the specification, the step of "stamp keys on frames (or other recording methods)..." describes the associating of tags with frames of video data.

9. In terms of the manner of implementing the tags with the video frames, the specification clearly describes how to make and use the system of tagging frames. Beginning at page 18, line 20, continuing to page 19, line 8, the application describes the use of an expanded SEMPTE time code structure to provide information which indicates the content of the frame.

10. Accordingly, the application describes a system in which tags are associated with frames of video, wherein the tags indicate the content of the frame to which they are associated. Further, the specification enables a person of ordinary skill in the art to create and use such tags.

11. Furthermore, the specification clearly shows how the

means for associating tags is coupled to the storage means. In particular, the machine generating the video frames stamps the frames of video with a tag. The associating means is a routine executed by the computer. Fig. 1 of the specification shows the computer 100 connected to the video storage 103 and to the camera position control 101. Thus, it is absolutely clear that the computer 100 which associates the tags with the frames of video data is coupled with the video storage system, and persons of ordinary skill in would unquestionably understand that connection based on a review in the specification.

12. The Examiner has also stated:

"What exactly is the "associating position means", and how is this "associating position means" coupled to the "processing means" since the drawings do not show the "associating position means" as specified in the claims." (Page 3 of the Official Action mailed April 30, 1993)

13. This rejection is addressed at the following elements of claims 1 and 7:

In Claim 1:

"means, coupled to the processing means, for associating positions in the content video image with addresses of storage locations storing corresponding frames of video data."

In Claim 7:

"associating with data processing means the positions in the content video image with addresses of storage locations storing corresponding frames of video data."

14. The specification describes these elements with reference to Fig. 4, elements 402 and 403. This figure describes a computer algorithm by which a content image is generated using the keys that have been assigned to each video frame, and by which the video frames are then compiled for addressing in response to the keys. These two steps are standard computer processes which persons of ordinary skill in the art will clearly understand as a means for associating the position of a video frame in a content image with the content of the video frame based on the key. Thus, the application describes the means for associating positions, and enables a persons of ordinary skill to make and use such means.

15. The application also provides a clear example of an algorithm for creating the means for associating positions at page 15, lines 22 through page 16, line 8. Particularly, the algorithm is based on the use of a data base having a position in the content

image of a key, and associating a key to a video frame by addresses. Thus, the position in the content image is associated with a key, and the key is associated with a frame of data.

16. I am informed that the Examiner is taking the position that the "associating position means" is not shown in the drawings. Fig. 4 illustrates a computer program for accomplishing such tasks, and is therefore believed to show the claimed feature. Furthermore, it's clear that the computer program is executed by the computer which includes a processing means. Thus, the processing means in the computer is associated with or coupled with the means for associating positions, as all computer programs are coupled with their host processor.

17. I have been informed that the Examiner has also stated:

"What exactly is the "means for accessing the frames of video data", and how is this "means for accessing the frames of video data" coupled with the "position selecting means" and the means for associating positions" since the drawings do not show the "means for accessing the frames of video data". (Page 3 of the Official Action mailed April 30, 1993).

18. The means for accessing the frames of video data appear in claims 2 and 6 in a means plus function format, and in claim 8 in a process format. Review of the specification reveals that the means for selecting a position in the content video image is the input device 111 shown in Fig. 1. Page 7, line 14-line 18, describes the use of the user input device 111, "such as a mouse or track ball" to position a cursor icon 112 on the content image 106. Thus, the user selects a position on the content image using an input device as clearly described in the specification in the drawings.

19. The "means for accessing the frames of video data" in Fig. 1 comprises a computer system 100. This system is expanded in Fig. 2, in which the computer 201 is used to control video disk players 202 and 203. The video disk players access stored frames of video in response to the computer control as well known in the art.

20. Thus, it is submitted that the application describes the means for accessing frames of video, and the means for selecting a position on the content image. Further, the application enables those of ordinary skill in the art to practice the invention claimed.

21. In summary, the invention described and claimed in the above identified U.S. patent application uses programming techniques

well known in the art to accomplish the unique features described. It is based on using an associative link between a content image, and a key or tag indicating the content of a video frame associated with the tag. The processing control can be easily implemented using data base or table look-up techniques well known in the computer graphics art.

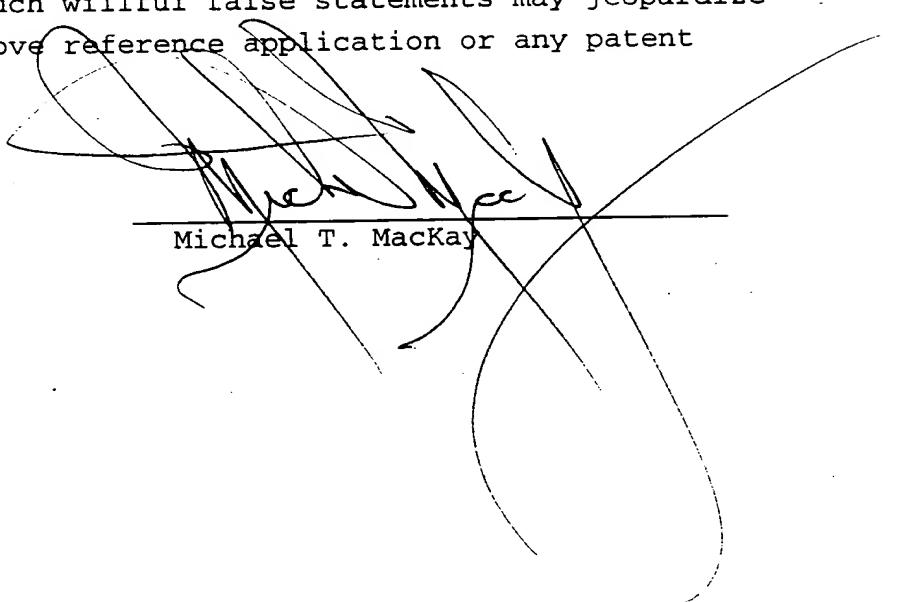
22. Overall, it is my opinion that all the elements claimed in the present application are described in the specification, and the description of such elements enables a person of ordinary skill in the art to practice the invention.

I hereby declare that all statements made herein of my knowledge are true and that all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above ~~reference application~~ or any patent issuing thereon.

22 Oct 93

Date

Michael T. MacKay



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<i>In re Application</i>	) <u>PATENT APPLICATION</u>
<i>Inventor(s):</i> <i>Hill Branscomb</i>	)
<i>Serial No.:</i> <i>07/640,489</i>	)
<i>Filed:</i> <i>01/11/91</i>	)
<i>Title:</i> <i>APPARATUS AND METHOD FOR</i>	)
<i>ASSEMBLING CONTENT ADDRESSABLE VIDEO</i>	)
	)

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS  
37 C.F.R. §1.9(f) AND 1.27(c) - SMALL BUSINESS CONCERN

*I hereby declare that I am:*

*The owner of the small business concern identified below.*

*An official of the small business concern empowered to act on behalf of the concern identified below.*

*Name:* Advanced Interaction, Inc.

*Address:* 2810 Fillmore Street, San Francisco, California 94123

*I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 37 C.F.R. §121.3-18, and reproduced in 37 C.F.R. §1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35 U.S.C. in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third-party or parties controls or has the power to control both.*

*I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified below with regard to the invention entitled:*

APPARATUS AND METHOD FOR ASSEMBLING  
CONTENT ADDRESSABLE VIDEO

*by inventor(s):* Hill Branscomb

*described in:*

Application Serial No. 07/640,489 filed 01/11/91

*If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights to the*

invention is listed below and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 C.F.R. §1.9(d) or by any concern which would not qualify as a small business concern under 37 C.F.R. §1.9(d) or a nonprofit organization under 37 C.F.R. §1.9(e).

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

Individual  Small Business Concern  Nonprofit Organization

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

Individual  Small Business Concern  Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small business entity is no longer appropriate. (37 C.F.R. §1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing Hill Branscomb

Title of Person Signing President

Address of Person Signing 2810 Fillmore Street, San Francisco, CA 9412

Signature Hill Branscomb

Date March 5, 1991

Note: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 C.F.R. §1.27).